In the Specification:

Please replace the paragraph beginning at page 1, line 4, with the following rewritten paragraph:

This application is a continuation-in-part of U.S. Patent Application No. 09/666,032, filed on September 20, 2000, now issued as U.S. Patent No. 6,630,943 B1 on October 7, 2003 and claims the benefit of U.S. Provisional Application Nos. 60/183,453, filed on February 18, 2000 and ~~_____~~, 60/248,438 filed on November 13, 2000 ~~(Attorney Docket No. 750037.401P4).~~

Please replace the paragraph beginning at page 7, line 9, with the following rewritten paragraph:

These and other features and advantages of embodiments of the present invention will become further apparent from the detailed description and accompanying figures ~~and appendices~~ that follow.

Please replace the paragraph beginning at page 17, line 12, with the following rewritten paragraph:

If, in determining the display type, the program identifies a video device driver that is supported by the xSides™ Video Driver Extensions (VDE), the program will use the VDE to implement overscan mode and proceed to run. The xSides™ VDE are extensions that can be implemented by video device driver suppliers to more transparently and congruently support the xSides™ environment. ~~These extensions are described in detail in Appendix E, which is herein incorporated by reference in its entirety.~~

Please replace the paragraph beginning at page 47, line 14, with the following rewritten paragraph:

The following descriptions provide some example user interface functionality that can be implemented using methods and techniques of the present

invention. ~~Appendices A, B, C, and D, incorporated herein by reference in their entirety, include descriptions and visuals demonstrating many of these user interfaces, including for example, the xSides™ application environment.~~ The xSides™ application environment (hereinafter "xSides™") implemented by xSides Corporation provides a complementary user interface, which can coexist using the techniques of the present invention with a native desktop such as Windows 95. It includes, among other capabilities, a cylindrical visualization of a secondary user interface, a Portal feature, and a Web Jump (Network Browser) feature that offers Internet browsing and searching capabilities. The Portal feature can include any type of textual or graphical content envisioned by its implementer. ~~One example use of a portal area, as a personal information manager (PIM), is discussed in detail in Appendix C.~~

Please replace the paragraph beginning at page 47, line 26, with the following rewritten paragraph:

xSides™ also includes the ability to create and execute these interfaces through an application programming interface (API) component. ~~An example xSides™ API is included as Appendix F, which is herein incorporated by reference in its entirety.~~ The xSides™ API supports the creation and maintenance of a secondary GUI, such as the example cylindrical user interface discussed below with reference to Figures 19-21.

Please replace the paragraph beginning at page 48, line 8, with the following rewritten paragraph:

The xSides™ environment is an embodiment of the methods and systems of the present invention. It supports a user interface that is always visible and accessible, technically scalable, able to "overtake" the desktop, merge-able, able to provide highly secure data transmissions, easy to use, and small (<1.5 MB to download). ~~Appendix A, which includes several screen displays, shows examples of some of these capabilities. Other examples of these capabilities and techniques provided by the user interface are provided in Appendices B, which is a product~~

~~specification for one example release of the xSides™ environment, and Appendix C, which is a product specification for an example PIM.~~

Please replace the paragraph beginning at page 49, line 11, with the following rewritten paragraph:

The xSides™ Technology is able to support interactive content and applications in a persistent fashion outside of the operating system because it resides outside of the operating system's control. Because xSides™ resides within an abstraction layer "below" the operating system and "above" the device drivers, xSides™ can adjust the parameters for the video display system, can increase the number of pixels and scan lines, and can enable keyboard and mouse events within the overscan area. This allows xSides™ to dramatically resize the existing desktop, if desired, "uncovering" the majority of the display area around any or all four sides of the desktop, which can then be used to display complementary content and applications. An application programming interface ("API") to the xSides™ Technology~~, for example the API of Appendix F~~ allows developers to rapidly develop applications that take advantage of these unique characteristics of the technology. The technology can potentially address every user of an Internet-enabled computer or TV worldwide. In addition, the proliferation of consumer electronics operating systems (*i.e.*, Microsoft CE) in such devices as portable daily planners and set-top boxes further expands the market opportunity for this technology.

Please replace the paragraph beginning at page 50, line 10, with the following rewritten paragraph:

The xSides™ Portal is an Internet display area which can contain any image or application, including email and instant messaging input and output, calendar and address book information, ISP controls, ad-banners, electronic programming guides and Web-based client-server applications. The Portal may be independent of and co-exist with (above, below, or beside) the xSides™ control bar. In one embodiment, the images and applications are html-based; however, one skilled in the art will recognize

that the Portal support can be programmed to display data / content in any programming language or format, such as Java-based content or XML. In each case the Portal support is modified to interpret the content source language of choice. Furthermore, the content source for the portal can come from a remote network such as the Internet, an intranet, or from local device storage, such as a hard disk. The xSides™ Portal may be used, for example, to build personal "desktop" Internet portals. Although in one embodiment preferably only one Portal is displayed in conjunction with an xSides™ control bar (there may be multiple bars on the screen), multiple Portals can be associated with a single side, provided each Portal is accessible through a user interface component such as a button or menu. ~~As mentioned above, Appendix C provides a detailed description of an application that uses the Portal as a personal information management tool (a PIM).~~

Please replace the paragraph beginning at page 50, line 27, with the following rewritten paragraph:

In a preferred embodiment, the xSides™ technology is implemented by a distributed architecture comprised of client and server computer systems. ~~Appendix G, which is herein incorporated by reference in its entirety, describes several of the components of this architecture. Programmatic access to the functions of these components can be provided by an application programming interface, for example, the Pixel Bar API of Appendix F.~~

Please replace the paragraph beginning at page 52, line 8, with the following rewritten paragraph:

In addition, the communications layer (client and server portions) enables the ability schedule server communication (ping the server for information) and to schedule the completion of server side tasks on behalf of dependent components on the client side. For example, the Stats/Logging mechanism described below may schedule the updates of server-side logging information on a periodic basis. Also, the components of the client-side xSides™ process, such as the DLLs previously

mentioned, can be downloaded at the start of each xSides™ session. Moreover, they can be "hot swapped" to download updated system components in the background. This enables xSides™ to dynamically configure and update itself transparent to the user. One skilled in the art will recognize that the frequency of updates and polling the server for information can be set in any manner – *e.g.*, randomly or explicitly or implicitly by the user or by the application (client- or server-side). In addition, the source and destination for pings and downloads is configurable – thus allowing the configuration of the server-side components to be dynamically configured as well. ~~Appendix G illustrates many of these concepts.~~

Please replace the paragraph beginning at page 53, line 18, with the following rewritten paragraph:

An important feature of the xSides™ Technology is the ability to "merge" content from multiple partners. Merging is a process in which content from one control bar is merged into another bar. Merge allows users to upgrade their existing xSides™ products to subsequent versions and to add or remove sides (or faces) to a user's control bar at will. ~~An example user interface for explicitly adding and removing sides via merge is shown in the AllSides dialog in Appendix G.~~ Preferably, when a merge takes place, the original distributor's logo and unique content retains its place on the user's bar, and one or more new sides of information are added. ~~One example implementation of the merge function is included as Appendix D, which is herein incorporated by reference in its entirety.~~

Please replace the paragraph beginning at page 55, line 6, with the following rewritten paragraph:

xSides™ also offers a statistics facility and a logging facility~~, which are described in Appendix G~~. Preferably, the statistics facility is implemented as a DLL component of the xSides™ application on the client computer system. The purpose of the statistics facility is to gather and record activity and send it to the server computer

system to be logged. Once logged, the logging facility uses the data to construct accounting reports and to perform other accounting functions.

Please replace the paragraph beginning at page 56, line 5, with the following rewritten paragraph:

xSides™ also provides a means for partners to send priority messages to their users via a mechanism known as Instant Alerts. The Instant Alert facility is preferably a DLL component and thus communicates with an xSides™ server via the communications layer described above. It can also be automatically updated. The Instant Alert facility allows a partner to send a message to a particular user or to broadcast it to a group (a class) of users. The message content is preferably HTML and is displayed in a browser window on the user's client machine. Each message is markup based with tags that identify the partner, the user GUID etc, and thus each message can be processed using xSides™ communication layer packet transport mechanism. Also, because the messages are markup based and thus contain embedded identifying information, appropriate acknowledgments can be sent back to the server when the message is displayed or received. ~~An overview of flow between the client and server systems in processing Instant Alerts is described in Appendix G.~~

Please replace the paragraph beginning at page 56, line 25, with the following rewritten paragraph:

In one embodiment, the xSides™ API provides support for interfacing to other technologies that enable the transmission of audio and video data over broadband cable networks and over the Internet. Support of these technologies allows xSides™ to support applications without having to load an alternate operating system, or multiple operating systems. For example, the API can be used to support two way audio and video applications such as a telephone, a video conferencing application, and other applications that use audio and video streaming technologies, such as those provided by Real Networks Inc. and Broadcom Inc. Also, xSides™ can integrate with the technologies and protocols for the transmission of voice over the Internet and

broadband networks (*e.g.*, VoIP, VoDSL, and VoATM). In all these cases, xSides™ presents an API to applications, which hides the underlying technology from applications developers, and allow the developers to present applications in persistent areas on a display screen. These API are compatible with any of the techniques used to modify the display screen and thus can present these persistent applications anywhere on the screen, including outside the desktop in physical overscan space, for example in Portals, in windows on the desktop, or in any combination of the above. ~~Appendix H, herein incorporated by reference in its entirety, shows several example such parallel user interfaces being displayed in conjunction with a native desktop.~~

Please replace the paragraph beginning at page 57, line 14, with the following rewritten paragraph:

In addition, when xSides™ is implemented with a microkernel and is packaged along with the application, the applications can be directly executed on the microkernel and thus execute more efficiently. One skilled in the art will understand that such packaging will enable embedding 2-way communication devices using xSides™ directly in devices that are function specific as opposed to a general purpose computer. In addition, one skilled in the art will recognize that the client applications can run on xSides™ implemented as a microkernel or hosted as services on top of a host OS transparently to the application. ~~These scenerios are demonstrated in Appendix H.~~

Please replace the paragraph beginning at page 61, line 11, with the following rewritten paragraph:

Cartridges such as cartridges 86-91 may be pre-loaded with links and accessories. Alternatively, the elements or buttons of a cartridge may be blank for loading by a user through a "merge" capability ~~(see Appendix D).~~ User cartridge(s) may include access to applications, documents, files, or network links such as URLs and or embedded functions. Some embedded functions which may be launched from a cartridge may include a browser, an MP3 player, instant messaging, trading notices for

marketplace functions, alerts for auction results and or trades, agent checking regarding price comparison searches. User items such as applications, documents, files, or network links may be added to a user button via any conventional method such as copy and paste or drag and drop functions of system software or of any web browser. Preferably, user buttons may be renamed or cleared in any conventional manner.

Please replace the paragraph beginning at page 62, line 19, with the following rewritten paragraph:

If title 89A is visible in band 72, execution of a complete button cycle on rotator 44 corresponding to band 82 will cause apparent rotation of bar 38 at button 46 corresponding to band 74 including everything to the right of button 46. Subsequent button cycles of a rotator such as rotator 44 cause titles which appear on button 46 to sequentially cycle through titles 89B, 89C, 89D, 89E and 89F with a new title appearing after each button cycle. In one preferred embodiment, a merge function may be included to allow cartridges such as cartridges 86-91 to be added to an existing parallel GUI such as parallel GUI 28. ~~(See Appendix D.)~~ A cartridge such as cartridge 86 may be added or merged with any existing cartridges in a parallel GUI such as parallel GUI 28 using any conventional technique such as copy and paste or drag and drop. A merged cartridge such as cartridge 86 may be added between any two adjacent cartridges such as cartridges 88 and 89. Similarly, existing cartridges may be reordered using a conventional sort function.